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# बिलासपुर विश्वविद्यालय

बिलासपुर ( छत्तीसगढ़ )



पाठ्यक्रम

सामाजिक विज्ञान - संकाय  
तिसमन रंघ पाठ्यक्रम  
सम. सं. (पूर्व) मूगोल

परीक्षा : 2014

:: प्रकाशक ::

कुलसचिव बिलासपुर विश्वविद्यालय  
बिलासपुर ( छत्तीसगढ़ )

:: मुद्रक ::



गीता पब्लिकेशन  
महामाईपारा, रायपुर ( छत्तीसगढ़ )

मूल्य : 25/-

**ORDINANCE NO. 38**  
**MASTER OF ARTS EXAMINATION**

1. The examination for the degree of master of Arts consist of two parts:
  - (a) The Previous Examination and
  - (b) The Final Examination.
2. A candidate who after taking his Bachelor's Degree of the University or an examination of any statutory University in India which has been recognised by the University as equivalent to the Bachelor's degree of the University and has completed a regular course of study in the teaching department of the University or in a College in the subject in which he offers himself for examination for one academic year shall be admitted to the Previous Examination for the degree of master of Arts.
3. A candidate who after passing the M.A Previous Examination of the University has completed a regular course of study for one academic year in a teaching department of the University in a College shall be admitted to the final examination for the degree of Master of Arts in the subject in which he/she has passed the Previous examination.
 

A candidate who has passed the Previous examination for the degree of Master of Arts of another University may also be admitted to the Final examination for the degree of Master of Arts after obtaining necessary permission from the kulpati, provided that he offered for his Previous Examination a course of study of an equivalent standard with almost identical syllabus as is required for one Previous Examination of the University, and has attended a regular course of study for one academic year in a College affiliated to the University or a teaching department of the University.
4. Besides regular students and subject to other compliance with this ordinance ex-students and non collegiate candidates shall be eligible for admission to the examination as per provision or ordinance No.6 relating to Examination(General)

- Provided that in the subject where field work or practical work is Prescribed only such candidates will be permitted to appear as non collegiate candidates who have obtained permission of the Head of the University Teaching Department or principal of the College teaching such subjects.
- Provided that non collegiate candidate shall be permitted to offer only such subject/papers as are taught to the regular students at any of the University Teaching Department or College.
5. The subjects of the Examination shall be one of the Following .
    - (i) English
    - (ii) Hindi
    - (iii) Economics
    - (iv) Politicals Science
    - (v) History
    - (vi) Sanskrit
    - (vii) Mathematics
    - (viii) Geography
    - (ix) Sociology
    - (x) Psychology.
  6. A candidate who has passed the M.A. Examination of the University in any subject shall be allowed to present himself for the M.A Examination in any one or more of the optional papers in that subject not taken by him at the said examination and if successful will be given a certificate to that effect.
 

No candidate shall be allowed to offer more than two additional papers in any one year.
  7. From the session 1986 - 87 for the Previous Examination candidate must obtain for a pass atleast 20% in each theory paper and Practical 36% of the aggregate marks in the Theory and practical separately in each Examination the above provision of 20% in each paper shall

be applicable for final Examination from the academic session of 1987-1988.

8. No division will be assigned on the result of the Previous Examination the division in which a candidate is placed shall be determined on the basis of aggregate of marks obtained in both the M.A. Previous and M.A Final Examination,
9. Successful candidates who obtain 60% or more of the aggregate marks shall be placed in the First Division, those obtaining less than 60% but not less than 48% in the Second Division and all other successful candidate obtaining less than 48% in the third Division.
10. Candidates who have passed the M.A Examination of the University in any subject in Third or Second Division and desire to appear at the M.A Examination in the same subject for improving division without attending a regular course of study in a college affiliated to the University or in a Teaching Department of the University be allowed to appear at the aforesaid examination as a non-collegiate student on the following conditions.
  - (i) There shall be only two Division for such candidates the First Division and Second Division, The Marks required for obtaining these division shall be the same as prescribed in the ordinance i.e. examinees who are successful in Final of the Examination and have obtained 60% or more aggregate of the marks in Previous and Final Examination taken together shall be placed in the First Division and Examinees who are successful in Final Examination and have obtained less than 60% but not less than 48% of aggregate marks in previous and Final examination taken together shall be placed in the Second Division.
  - (ii) The result of the candidates obtaining less than 48% of the aggregate marks in Previous and Final Examination taken together shall not be declared.
  - (iii) Candidates shall be have the option to appear at both the previous and final examination in one and the same year and for being successful

At the examination, the candidates shall obtain 48% of the aggregate marks.

Provided that such candidates who want to appear in previous and final examination separately shall have to obtain minimum aggregate required for the previous examination but he will have to obtain atleast 48% in the aggregate of previous and final examination taken together or else his result will be cancelled.

(iv) The Syllabus for the examination shall be same as prescribed for the year in which the examination is held.

(v) Not more than two attempt shall be allowed to such a candidate failure of appearance at the examination after per permission has been accorded by the University shall be counted as an in attempt.

Provided however such candidates who want to appear at the previous and final examination separately will be allowed only one attempt of the previous examination and two attempts at the final examination.

(vi) Candidates who wish to avail the opportunity given in fore going paras will have to apply for permission as required in the Ordinance relating to admission of non-collegiate students to the University examination along with registration fee.

(vii) In case, a student Improves his division under provision of this para. The fresh Degree will be issued after cancelling his first Degree.

## एम.ए. (पूर्व) भूगोल

एम.ए (पूर्व) भूगोल में चार सैद्धान्तिक तथा एक प्रायोगिक प्रश्नपत्र होंगे प्रत्येक प्रश्नपत्र 100 - 100 अंको का होगा ।

### M.A. (Previous) GEOMORPHOLOGY

Paper - 1

M.M.100

#### OBJECTIVES:

\* It being a course at the interface of Geography with earth, the student has to be sensitized to the background knowledge of geology and environmental sciences.

\* The objectives of the course is one to familiarize the students with the need for understanding of geomorphology with reference to certain fundamental concepts, focusing on the unity of geomorphology in the earth materials and the processes with or without an element of time. Process component of geomorphology is segmented into the internal and external processes of landscape evolution.

\* Finally, a few selected applications of geomorphology to societal requirements and quality of environment are dealt with.

#### COURSE CONTENTS:

**Unit - I : Nature and scope of Geomorphology**, Fundamental concepts - Geological structures and landforms, multicyclic and polygenetic evolution of landscapes, concepts of threshold. Environmental change - climatic change and geochronological methods - documentary evidence,

**Unit - II : Earth movements** - epeirogenic, orogenic and cymatogenic earth movements. Forces of crustal instability, isostasy, plate tectonics, vulcanicity, orogenic structures with reference to the evolution of the Himalaya.

**Unit - III : Exogenic Processes** : Concept of gradation, Agents and processes of gradation, causes, types and classification of weathering, mass movement erosional and depositional processes and resultant landforms and soil formation. Slope evolution,

**Unit - IV : Geomorphic processes** dynamics of fluvial, glacial, Aeolian, marine and karst processes and resulting landforms, Erosion surfaces - techniques of identification and correlation.

**Unit - V : Applied geomorphology** - application of geomorphic mapping

Terrain evaluation .DEM and TIN and capability and land suitability classification. hydrogeomorphology, urban geomorphology, environmental geomorphology, geomorphic hazards.

#### Suggested Readings

1. Chorley, R.J. Spatial Analysis in Geomorphology, methuen, London 1972.
2. Cooke, R.U. And Doornkamp, J.C. Geomorphology in Environmental Management A introduction ; Clarendon Press Oxford. 1974.
3. Dury. G.H. : The Face of the Earth, Penguin Harmondworth. 1959.
4. Fairbridge, R.W. Encyclopedia of Geomorphology, Reinholdts, New York, 1968.
5. Goudie, A: The nature of the Environment, Oxford & Blackwell, London, 1993.
6. Garner, H.F. The Origin of landscape- A Synthesis of Geomorphology, Oxford University Press, London. 1974.
7. Mitchell, C.W. : Terrain Evaluation, Longman, London, 1973.
8. Ollier, C.D.: Weathering ,Longman, London, 1973.
9. Pitty, A.F. Introduction to Geomorphology, Methuen, London, 1971.
10. Stoddari, D.R. (ed.) : Process and Form in Geomorphology, Roultege, New York, 1996.
11. Skinner, B.J. & Porter, S.C.: The Dynamic Earth John Wiley, New York. 1995.
12. Sparks, B.W. Geomorphology , Longman, London, 1960.: Perspectives in Geomorphology, Concept. New Delhi 1960.
13. Sharma. H.S. (ed) : Perspectives in Geomorphology, Concept, New Delhi 1980.
14. Singh, S. : Geomorphology .Prayag Publication, Allahabad, 1998.
15. Thornbury. W.D. Principles of Geomorphology, John, Wiley new York 1960.
16. भू - आकृति विज्ञान : सविन्द्र सिंह ।
17. भौतिक भूगोल : मीरा बातल ।
18. भू - आकृतिक विज्ञान : जी . पी. यादव, वेदराम, सुरेश ।

#### PEDAGOGY:

\* Geomorphology is essentially a field science, therefore students be taken to the field for effective understanding of geomorphic forms and

processes. Department must have good geomorphic lab equipped with photographs of landforms of various climatic regions and topographic sheets of Survey of India.

A-1453 M.A.(Previous)  
ECONOMIC GEOGRAPHY

Paper - II ~~4472~~ ~~AI-6543~~ M.M. -100

OBJECTIVES:

The Economy of the world is changing in recent times. The changes in primary, secondary and tertiary stage is dynamic in nature in view of this, the objectives of this course are to integrate the various factors of economic development to acquaint the students about dynamic aspects of economic geography.

COURSE CONTENTS:

**Unit - I Scope content and recent trends in economic geography,** relation of economic geography, with economics and other branches of social sciences, Classification of economies sectors of economy (Primary, Secondary, and tertiary) Location of economic activities.

**Unit - II Factors of location of economic activities :** Physical, Social economic and cultural, Principles governing exploitation of minerals, world distribution and production of iron ore, manganese, copper, tin, zinc, bauxite, coal and petroleum.

**Unit - III Manufacturing of industries :** Resource based and foot loose industries, Theories of Industrial location - Weber, Losch and Isard: Location and distribution of selected industries Iron and Steel, Aluminium, Chemical, Oil refining and Petrochemical, Engineering, Textile etc.

**Unit - IV Transport and Trade-** Factors governing land, Oceanic and air transport, accessibility and connectivity, major international railways and oceanic routes. Trade - Trade laws, world trade patterns.

**Unit - V Economic development of India.** Regional disparities, impact of green revolution on Indian economy, industrial development during plan period.

Globalization and Indian economy and its impact on environment.

SUGGESTED READING :

1. Berry J.L. Geography of Market Centres and Retail Distribution. Prentice hall. New York 1967.

2. Chatterjee. S.P. Economic Geography of Asia. Allied Book Agency Calcutta 1984.
3. Chorley, R.J. and Haggett, P. (ed) : Network Analysis in Geography, Arnold 1969.
4. Dreze, J. and Sen A: India - Economic Development and Social Opportunity, Oxford, University press, New Delhi. 1996.
5. Eckersley R. (ed.) Markets The state and the Environment. McMillan. London. 1995.
6. Garnier, B.J. and Delobez, A Geography of Marketing, Longman, London, 1979.
7. Hamilton, F.E.I: Spatial Perspectives on Industrial Organisation and Decision making, John Wiley, New York, 1974.
8. Hamilton, I.(ed.) Resources and Industry, Oxford University press, New York, 1992
9. Hurst E: Transport Geography - Comments and Readings, Mc. Graw Hill - New York 1974.
10. Morgan, W.B and Munton R.J.C. Agricultural Geography, Methuen, London, 1977.
11. Pachuri R.K. Energy and Economic Development in India, Preger, New York 1977.
12. Robertson, D. (ed.) Globalization and Environment, E. Elgar Co. U.K. 2001.
13. Rostow, W.W. The Stages of Economic Growth Cambridge University press. London, 1960.
14. Singh J. and Dhillon, S.S. Agricultural Geography, McGraw Hill India, New Delhi. 1984.
15. Symons. L: Agricultural Geography Bell and Sons, London, 1972.
16. Wheeler J.O. et, al. Economic Geography John Wiley New York 1995.
17. काशीनाथ सिंह एवं जगदीश सिंह - आर्थिक भूगोल के मूल तत्व ।
18. प्रमीला कुमार एवं श्री कमल शर्मा - कृषि, भूगोल, पांचवा संस्करण म.प्र. हिन्दी ग्रंथ अकादमी, भोपाल ।
19. प्रमीला कुमार एवं श्री कमल शर्मा - औद्योगिक भूगोल, म. प्र. हिन्दी ग्रंथ अकादमी भोपाल

**PEDAGOGY:**

\* The Students should be acquainted with the different branches of economic geography with examples. They should be motivated to interact with the teacher to identify economic activities of the people residing in different parts of the world.

~~1473~~ ~~AM-1511~~ **M.A. (PREVIOUS)** ~~AL-6544~~  
**PAPER - III**  
**A-1454 GEOGRAPHY OF INDIA** ~~8493~~

**Unit - I India in the context of Asia and the World;** Land : Major terrain units and their characteristics, drainage system, the Indian monsoon, regional and seasonal variation of weather, climatic division, Soil types their characteristics, distribution and problems, ; Forest resources and their conservation.

**Unit - II Mineral and power resources** - reserves, production and problems of conservation of major minerals; Population - number, distribution and growth with special reference to post independence period and its implications : Literacy and education- spatial Urbanization and characteristics of Indian cities.

**Unit - III Economy** - An overview of Indian economy and impact of globalization on it' Cultivated land - land use patterns, characteristics and problems of agriculture; Irrigation - Development and spatial pattern, Technological development in agriculture - green revolution and its consequences. Agricultural regionalisation of India.

**Unit - IV Industry** - Industrial development : an overview ; locational factors and spatial pattern of major industries in India - iron & Steel, engineering goods, textiles, chemicals, cement , sugar, and paper Industrial regions of India. Transport and trade: Internal and international trade of India composition and change.

**Unit - V Regions of India** -basis of regional division ; macro, meso and micro regional divisions of India by O.H.K. Spate and R.L. Singh : detailed study of Eastern , U.P. Narmada Basin, Malwa Plateau, Chhatisgarh basin and Marusthalii. .

**Suggested Reading.**

1. Chadna. R.C. Population Geography .Kalyani , New Delhi.
2. Das P.K. : The Monsoon national Book Trust of India, New Delhi.  
Government of India: The Gazetteer of India, Vol. I : The land and

1. People Publication Division, New Delhi.
2. Deshpande, C.D.: India - A Regional Interpretation, Northern Book Centre, New Delhi.
3. Mukherjee, A.B. & a. Aijazuddin , eds. : India -Culture , Society & Economy, Inter India New Delhi.
4. Sharma, T.C. & O Countinho, : Economic and Commercial Geography of India, Vikash Publication, New Delhi.
5. Singh, Jagdish : India Gyanodaya, Gorakhpur.
6. Singh, Jasbir: Agricultural Atlas of India. Vishal Publication kurukshetra.
7. Singh, M.B. Industrial Development in India. Lotus, Varanasi, 1985.
8. Singh R.L., ed India - A Regional Geography .national Geographical Society of India. Varanasi 1971.
9. Sinha B.N: Industrial Geography of India. The World press, Calcutta,
10. Spate, O.H.K. & A.T.A. Learmonth : India and Pakistan land people and Economy , Methuen, London.
11. अग्रवाल पी.सी.-भारत का भौतिक भूगोल, एशिया प्रकाशन कंपनी 326, सुंदरनगर रायपुर
12. तिवारी विजय कुमार : भारत का भूगोल, हिमालय पब्लिकेशन ,मुम्बई 2000 ।
13. तिवारी विजय कुमार : भारत का जनसंख्या भूगोल, हिमालय पब्लिकेशन, मुंबई 1997.
14. तिवारी, विश्वनाथ : भारत का भौगोलिक स्वरूप, शिवलाल आगरा ।
15. बंसल सुरेश चंद्र : भारत का वृहद् भूगोल, मीनाक्षी प्रकाशन, मेरठ ।
16. सिंह, जगदीश, भारत का वृहद् भूगोल, ज्ञानोदय प्रकाशन , गोरखपुर 2000
17. शर्मा, श्री कमल (सं) भारत का भूगोल, म.प्र. हिन्दी ग्रंथ अकादमी भोपाल, 2004
18. Spate, O.H.K. and Learmonth. A.T.A. : India and Pakistan and Cylon Methuen & Co. London. 1967.
19. Spencer. Joseph & Thomas William L: Asia East by South A Cultural Geography John Wiley & Sons New York. 1971.
20. Trewartha, G.T. : Japan ; A Physical and Cultural Geography. University of Wisconsin Press, Madison 1965.

21. Wolmington, M.W.: Middle East : Centre of Supply, University press, London 1971.
22. Centre for Science & Environment (1988) State of India's Environment New Delhi.
23. Deshpande C.D. India : A Regional Interpretation ICSSR & Northern Book Centre, 1992.
24. Dreze, Jean & Amartya Sen (ed) India Economic Development and Social opportunity: Oxford University press, New Delhi. 1996.
25. Kundu A. Raza Moonis: Indian Economy :The Regional Dimension, Spectrum Publishers, New Delhi. 1982.
26. Robinson, Francis;The Cambridge Encyclopaedia of India Pakistan Bangladesh, Sri Lanka, Nepal, Bhutan & Maldived. Cambridge University press. London. 1989.
27. Singh R.L. (ed) : India A - Regional Geography, National Geographical Society, India. Varanashi, 1971.
28. Spate OHK & AATA Learmonth - India & Pakistan methuen. London. 1967.
29. Tirtha R. & Gopal Krishna .Emerging India Reprinted by Rawat Publications Jaipur.
30. B.K. Shrivastav - Regional Development & Planning.
31. Raghunath Ojha - Regional Development & Planning.

**PEDAGOGY :**

\* Students may be encouraged to look for the connections between Meso regions with the Macro and Micro level regions, Readings from other disciplines focusing on the selected regions may also be emphasized.

A-1455 **M.A. (Previous)**  
**HISTORY OF GEOGRAPHICAL THOUGHT**

Paper - IV ~~1474 AL-6545~~ M.M. 100

**OBJECTIVES :** ~~8494 AM-1512~~

- \* To Introduce the students to the philosophical and methodological foundations of the subject and its place in the world of knowledge.
- \* To familiarize them with the major landmarks in development of geographic thought at different period of time.

**COURSE CONTENT:**

**Unit - I : The field of geography** : its place in the classification of sciences: geography as a social science : and natural science. selected concepts in the philosophy of geography, distributions, relationships, iterations, areal differentiation and spatial organization.

**Unit - II : Historical Development** : Contributions of different scholars during ancient medieval and modern period, Dualisms in geography : systematic & regional geography: Physical & human geography, Systematic geography & its relation with systematic science and with regional geography, The myth and reality about dualisms.

**Unit - III : Regional geography** Concept of region, regionization and the regional method. Scientific explanation: Routes to scientific explanation (Inductive/Deductive): types of explanations, cognitive description; cause & effect, temporal: functional/ecological systems.

**Unit - IV : Laws, theories & models**, the quantitative revolution, responses to positivism, behaviourism, postmodernism.

**Unit - V : Geography in the 20th century**; conceptual and methodological developments and changing paradigms ; status of Indian Geography, Future of geography , task ahead relating to development of geographic thought with special reference to changing views on man-environment relationship.

**SUGGESTED READINGS :**

1. Abler, Ronald: Adms, John S. Gould, Peter: Spatial Organization: The Geographer's View of the World, Prentice Hall, N.J. 1971.
2. Ali, S.M. : The Geography of Puranas, Peoples Publishing House Delhi, 1966.
3. Amedeo, Douglas : An Introduction to Scientific Reasoning in Geography, John Wiley, U.S.A., 1971.
4. Dikshit, R.D. (ed): The Art & Science of Geography Integrated Readings, Prentice Hall of India, New Delhi, 1994.
5. Hartshorne, R.: Perspectives on Nature of Geography, Rand McNally & Co. 1959.
6. Hussain, M : Evolution of Geographical Thoughts, Rawat Pub., Jaipur, 1984.
7. Johnston, R.J.,: Philosophy and Human Geography, Edward Arnold, London, 1983.
8. Johnston, R.J., : The future of Geography, Methuen, London, 1988.

9. Minshull, R. : The Changing Nature of Geography; Hutchincon University Library, London, 1970.
10. Dixit, R.D. - Evolution of Geography Prentice Hall of India, New Delhi.
11. दीक्षित, आर. डी. भौगोलिक विचार धारा का विकास प्रेटिल हाल, ऑफ इंडिया
12. पंडा, बी. पी. एवं एल. एन. वर्मा - भौगोलिक चिंतन का इतिहास म.प्र. हिन्दी ग्रंथ अकादमी,, भोपाल ।

**PEDAGOGY :**

- \* Students of geography may be encouraged to interact with their counterparts from other disciplines and discuss the nature of their subject.
- \* The students may be encouraged to collect information on any theme amenable to geographical interpretation.

**M.A. (Previous)**  
**ADVANCED CARTOGRAPHY**

**PRACTICAL - I**

M.M. 100

**OBJECTIVES :**

- \* To appraise the student with latest trends in the development of cartography as a tool in mapping thematic and quantitative data, to facilitate spatial analysis and synthesis.
- \* To provide training in application of modern tools and techniques to data in a variety of topical and regional studies at local, regional and national levels.
- \* To attempt regional synthesis by the use of cartographic and quantitative techniques.

**Distribution of Marks**

1.	Practical Record	-	20
2.	Lab Work	-	70
3.	Viva Voce	-	10
Total		-	100

**COURSE CONTENTS :**

**Unit - I** Introduction Trends in the development of cartographic techniques for descriptive, analytical and prescriptive aspects in the use of maps.

**Unit - II Thematic Cartography - Physical :**

1. Assessment of land quality by using different attributes in the evolution of land forms and measuring their association and spatial differentiation.

1. Following exercise may be taken for the prescribed syllabus.
  - A. Relief Profiles - Serial Profile, Superimposed Profile, Projected Profile, Composite Profile, Hypsometric curve.
  - B. Slope Analysis - Wentworth Method, Smith's slope Method,
  - C. Drainage - Longitudinal Profile.

Land based resources and use. Land Use - Preparation of maps based on Agricultural land use and urban land use.

**Unit - III: Thematic cartography - Socio - economic:** Data sources and techniques of analysis of socio -economic data through the preparation of single purpose and composite maps.

The Following exercise may be taken for the prescribed syllabus.

Population. Agricultural Production. Industrial production. Forest Production. Minisity data may be taken for following.

**Inbucical maps -**

1. Dot Map
2. Isopleth map
3. Choropleth map
4. Chorocromatic map

**Unit - IV :** Creation of spatial database and application using GIS, Remote sensing and Computer cartography in geographical studies;

The Following theoretical/Practical exercise may be taken from prescribed syllabus. creation and analysis and database use of multi spectral sensors GIS and map analysis, coding decoding techniques, Preparation of one dimensional two dimensional & multi dimensional maps.

**Unit - V :** Regional Synthesis and characterization of the observed spatial patterns for predictive purpose. Preparation of spatial models; cartography for environmental education and planning.

The Following theoretical/Practical exercise may be taken for Prescribed Syllabus.

Settelite Image analysis for applied purpose .

1. Remote sensing for land forms analysis.
2. Environmental analysis.
3. Forest and cropped area analysis.
4. Landuse analysis.

#### SUGGESTED READING:

1. American Society of Photogrammetry, Manual of Remote Sensing ASP, Falls Church V.A. 1983.
2. Aronoff S. Geographi Information Systemems:A Management perspective,DDL Publication Ottawa, 1989.
3. Barretl E.C. and L.F. Curtis, Fundamentals of Remote Sensing and Air Photo interpretation, Mcmillan .New York.1992.
4. Burrough P.A. Principles of Geographic Information Systems for Land Resource Assessment Oxford University Press, New York 1986.
5. Campbell. J. Introduction to Remote Sensing Guilford. NewYork.1989.
6. Curran, Paul J. principles of Remote Sensing Longman, London 1985.
7. David Unwin, Introductory Spatial analysis, Methuen London 1981.
8. Fraser Taylor D.R. Geographic Information System .pergaman press. Oxford.1991.
9. Gregory S. Statistical Method and the Geographer ,Longman, London 1978.
10. Hammond R. and P. S. McCullagh Quantitative Techniques in Geography : An Introduction.Clarendan Press. Oxford.1974.
11. Hord R.M.- Digital Image Processing of Remotely Sensed Data. Academics, New York 1989.
12. John P. Cole and Cuchlaine A.M. King Quantitative Geography, John Wiley London 1973.
13. Johnston R.J.Multivariate Statistical Analysis in Geography Longman, London 1973.
14. Luder D. Aerial Photography Interpretation : Principles and Application, McGraw Hill, New York 1959.
15. Maquire D.J. Multivariate Statistical Analysis in Geography, Longman london 1973.
16. Mark S. Monmonier, Computer - assisted Cartography, Prentice Hall, Englewood Cliff, New Jersey 1982.

17. Peuquet D.J. and D.F. Marble Introductory Reading in Geographic Information Systems, Taylor & Francis, Washington, 1990
18. Pratt, W.K. Digital Image processing ,Wiley New York 1978.
19. Rao D.P(eds) Remote Sensing for Earth Resources Association of Exploration Geophysists Hydrabad 1998.
20. Star J and j Estes Geographic Information Systems: An Introduction Prentice Hall , Engle wood Cliff, New Jersey.1994.
21. Yeats maurice An Introduction to Quantitative Analysis is Human Geography. McGraw Hill, New York 1974.

#### PEDAGOGY:

- \* The students need to be trained in the use of conventional vis - avis modern tools and techniques of cartographi analysis to generate spatial pattern and associations and attempt a geographical interpretation.
- \* They should be encouraged to create spatial database for their local areas based on sate lite imageries and remote sensing techniques and other kinds of maps.

### M.A.(Previous)

#### FIELD WORK - INSTRUMENTAL SURVEY

PRACTICAL - II

M.M.- 100

#### OBJECTIVE :

- \* To familiarize how topographic , cadastral maps or plans of any area are prepared to enhance the skill of the students in the field of survey for revenue purpose and understand the principles of map making.

#### DISTRIBUTION OF MARKS

1.	Practical Records	20
2.	Survey	70
3.	Viva - Voce	10
Total		100

#### Course Contents:

- Unit - I** Importance of field instrument survey - scope and purpose, principle and application of selected survey instruments.
- Unit - II** Plane table; plan preparation, resection- one point and two

- point problem: three point problem: tracing paper method.
- Unit - III** Dumpy level : traverse survey, contour plan preparation.
- Unit - IV** Theodolite - horizontal and vertical (height) measures, accessible and inaccessible methods.
- Unit - V** Other smaller instruments Indian clinometer; height measurements ; survey of a selected area. preparation of base map by the use of surveying instruments; e

**Suggested Reading :**

1. Clendinning J. Principles and use of Surveying Instruments, 2nd edition, Blocke. A 1958.
2. Clendinning J. principles of surveying 2nd edition 1960.
3. Hotine .Major M. The re traingulation of Great Britain, Empire survey review.1935.
4. Mitra, R.P. and Ramesh A: Fundamentals of Cartography Revised Edition, Concept Publication , New Delhi.
5. Monkhouse- Maps and diagrams methuen 1971.
6. Negi, Balbir Singh , Practical Geography Third revised ed. Kedar Nath and Ram Nath, Meerut & Delhi, 1994 - 95.
7. Sandover, J.A. Plane Surveying Arnold 1961.
8. Singh & Karanjta - Map work and Practical Geography Central Book Dept. Allahabad.1972.
9. Singh. R.L. and Dutt. P.K. Elements of Practical Geography Students friends Allahabad. 1968.

**Pedagogy :**

- \* Village/Local area to be surveyed and other buildings in the university plans to be prepared for the geography department.

Or

## M. A. (PREVIOUS) Geography

**PRACTICAL**

M.M.- 100

**Advanced Cartography and Surveying****Unit I - Graphs and Diagrams****Marks - 15**

Triangular graph, logarithmic and semi logarithmic graphs, climatograph, Proportional circles, spheres and cubes, potxciateri byramid.

**Unit II - Thematic Maps****Marks - 15**

Choropleth maps, Isolines, Flow maps, Isochrones and class interval

**Unit III - Mospometric Analysis****Marks - 15**

Profils, Slope analysis, Altimetric and clinographic curves, Block diagrams.

**Unit IV - Analysis of Geographical Pattern and Geological Maps.****Marks - 15**

Lorenz curve, Generalization of Poiut, Patterns, crop corubination; Trend Analysis, Nearest Neighbour Analysis

Study Geological maps for horizontal, tilled, folded, fauled, unconformable and intruded structures.

**Unit V - Surveying****Marks - 15**

Principles and methods of topographical surveying involving the use of Theodolite and Dunpy Level. Solution of Problems in Surveying.

Practical Record - 20

Viva on above - 05

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